

Appendix J

Measure M/CMP Analysis

002397

REPORT OF COMPLIANCE

**Congestion Management Program
Orange County Measure M Growth Management Program**

for

**James A. Musick Facility Expansion and Operation
Relocation of Interim Care Facility
Southeast Orange County Sheriff's Station**

**County of Orange
Orange County Sheriff-Coroner**

August 16, 1996

002398

Introduction

Orange County implementation of the statewide Congestion Management Program (CMP) and the countywide Measure M Growth Management Program (GMP) requires local jurisdictions to understand how the additional traffic generated by a proposed development project will impact CMP and Measure M levels of service targets upon the Orange County Master Plan of Arterial Highways.

The programs further require an assessment of traffic demand in relation to circulation infrastructure capacity, to insure that infrastructure is logically added as development proceeds so that roadway improvements are in balance with projected demand.

This report presents an assessment of how the proposed project—an expansion of the James A. Musick Jail Facility and development of an Interim Care Facility and a Southeast Orange County Sheriffs' Station—complies with the provisions of the Orange County CMP and the Orange County Measure M Growth Management Program (GMP).

The County of Orange has adopted several programs to incorporate CMP and GMP requirements into its development review process, for projects located within the unincorporated area of the County of Orange.

These include:

- a Growth Management Plan Element, to ensure that the planning, management and implementation of traffic improvements and public facilities are adequate to meet the current and projected needs of Orange County;
- a Trip Reduction and Travel Demand Ordinance, to mitigate the impacts that development projects may have on transportation mobility, congestion and air quality; and,
- a Growth Management Plan Transportation Implementation Manual, which describes how the general traffic policies of the Orange County Growth Management Plan Element are to be implemented on a site-specific basis.

The Musick Facility Expansion project has been reviewed against, and has been determined to comply with, applicable provisions of the Orange Congestion Management Program and the Orange County Measure M Growth Management Program. An assessment of such programs' compliance is presented herein.

Project Summary

Project Applicant:

County of Orange; Orange County Sheriff-Coroner

Proposal:

To expand the existing James A. Musick jail facility site as follows:

- Expand the capacity of the existing, jail facility from 1,250 inmates to 7,580 inmates:
- Construct support facilities for the jail facility, including a Warehouse Complex.
- Construct a 20,000 square foot facility that would serve as the Southeast Orange County Sheriff's Station; this law enforcement function is temporarily being conducted at the Temporary South Substation in Laguna Niguel.
- Construct a 40-bed Interim Care Facility (ICF) for emotionally and psychiatrically unstable youth.

The project is proposed to be developed in three complexes. Complex 1 will consist of an increase of approximately 865 inmates at the jail facility, the operation of a Southeast Orange County Sheriff's Station, and an Interim Care Facility. Complex 2 will increase the jail population an additional 1,625 inmates. Complex 3 adds 3,840 inmates. For the purposes of insuring a conservative assessment of circulation improvement needs, the project traffic analysis assumes that all components of the expansion will be constructed and operational within a five-year timeframe (Year 2000).

Site Location:

Southeast of the future extension of Alton Parkway and northwest of existing Bake Parkway, in the unincorporated area of the County of Orange. The facility is located in the Sphere of Influence of the City of Irvine, and is immediately adjacent to the City of Lake Forest.

Technical Report Used for CMP/GMP Analysis:

August 1996 "James A. Musick Facility Expansion Traffic Analysis," Austin-Foust Associates.

Review Mechanism:

Draft Environmental Impact Report #564; "Expansion of James A. Musick Facility; Relocation of Interim Care Facility; Southeast Sheriff's Station."

Section 1: Traffic Generation

CMP/GMP Framework:

The Orange County CMP identifies a traffic generation threshold from which to assess a proposed development project's traffic impacts upon the Congestion Management Program Highway System (CMPHS). The threshold is 2,400 Average Daily Trips (ADT), regardless of where the project is located. For developments which directly access the CMPHS, the threshold for requiring a traffic impact analysis is 1,600 ADT.

The Orange County Measure M Growth Management Program recommends that the same ADT threshold be utilized to assess Measure M traffic impacts upon the Orange County Master Plan of Arterial Highways (MPAH).

The purpose of the traffic impact analysis is to determine:

- how the additional trips generated by the proposed project will impact the capacity of the existing and planned circulation system;
- the degree to which the proposed project contributes to any identified, transportation deficiencies;
- feasible mitigation measures that can address the identified circulation deficiencies; and,
- the timing of identified circulation mitigation measures, to ensure that infrastructure is added as development proceeds, resulting in roadway improvements which are in balance with projected demand.

Discussion/Findings:

The James A. Musick Facility is an existing jail facility operated by the County of Orange. Housing approximately 1,250 inmates, the existing facility generates 1,204 Average Daily Trips (ADT).

The proposed project, as established in Draft Environmental Impact Report #564 for the James A. Musick Facility Expansion, would expand the existing facility as follows:

- Increase the capacity of the existing, jail facility from 1,250 inmates to 7,580 inmates.
- Construct support facilities for the jail facility, including a Warehouse Complex.

- Construct a 20,000 square foot facility that would serve as the Southeast Orange County Sheriff's Station; this law enforcement function is temporarily being conducted at the Temporary South Substation in Laguna Niguel.
- Construct a 40-bed Interim Care Facility (ICF) for emotionally and psychiatrically unstable youth.

Table III-1 of the project traffic study identifies that the proposed project will generate 4,253 Average Daily Trips (ADT), for a total site trip generation of 5,457 ADT at project buildout.

Since the trip generation of the proposed project triggers the 2,400 ADT threshold for a CMP and GMP traffic analysis, the applicant is required to identify whether the additional trips generated by the proposed project allow levels of service standards/targets to be maintained upon the CMP Highway System (CMPHS) and the Orange County Master Plan of Arterial Highways (MPAH).

Section II: CMP Levels of Service

CMP/GMP Framework:

The Orange County Congestion Management Program Highway System (CMPHS) includes all state highways and principal arterials, in conformance with state legislative requirements. Figure 3 is the adopted Congestion Management Program Highway System for Orange County.

To evaluate the performance of the Orange County CMP Highway System, more than eighty (80) intersections have been established countywide for levels of service monitoring.

In 1991, the Orange County CMP established a baseline and a level of service performance standard for CMP Highway System intersections. These intersections' 1991 baseline levels of service, and the associated Intersection Capacity Utilization volume to capacity ratios, are illustrated in Figure 1.

Within the defined CMP Highway network, no intersection may be allowed to deteriorate to a condition which is worse than Level of Service (LOS) "E", or the existing level of service, if worse than LOS "E", without mitigation being prescribed. In the case of base conditions reflecting a level of service worse than "E", "existing LOS" is defined by the Orange County CMP as any increase in volume to capacity ratio (V/C) of up to 0.10 over the base condition. V/C ratio increases beyond 0.10 above the base condition are considered not to comply with CMP level of service objectives, and shall require mitigation or a CMP deficiency plan.

Discussion/Findings:

In the study area, components of the CMPHS include:

- Trabuco Road
- El Toro Road
- Irvine Center Drive
- Sand Canyon Avenue
- Interstate 5

El Toro Road at Trabuco Road, under the jurisdiction of the City of Lake Forest, is a designated CMP intersection. As identified in Figure 1-2, its 1991 baseline performance was a Level of Service "F" in the AM peak, and a Level of Service "C" in the PM peak.

In compliance with the Orange County CMP requirements, the El Toro Road/Trabuco Road intersection is required to maintain the following performance standard:

- AM: LOS "F" with a volume to capacity ratio no greater than 1.13
- PM: LOS "E" with a volume to capacity ratio no greater than 1.00.

The August 1996 James A. Musick Facility Expansion Traffic Analysis assesses the full development of the project at distinct time frames, including an existing, interim (Year 2000) and long-range (Year 2020) scenarios. The interim year scenario represents an analysis of the full buildout of the project components, even though actual construction and occupancy may extend over a longer period of time than a five-year timeframe. This allows a worse case scenario for traffic impact purposes.

In 1996, the Orange County Transportation Authority conducted traffic counts for all CMPHS monitored intersections, and compared these 1996 levels of service with the 1991 baseline LOS. A preliminary summary of the Orange County CMPHS levels of service is illustrated in Figure 2.

According to Figure 2-2, the El Toro Road/ Trabuco Road CMP intersection currently operates at a Level of Service "B" (V/C of 0.61) in the AM peak period, and Level of Service "C" (V/C of 0.72) in the PM peak period. These levels of service are consistent with the levels of service reported by the project traffic study for said intersection.

The project traffic study identifies that the additional traffic generated by full buildout of the James A. Musick expansion, when added to existing and approved development in the study area, will not cause levels of service at the El Toro Road/Trabuco Road CMP intersection to exceed its established CMP Level of Service standards at project buildout and at General Plan buildout.

Specifically, Table IV-2 of the project traffic study identifies that a Level of Service "D" is projected to be maintained at the El Toro Road/Trabuco Road intersection at project buildout (Interim Year: Year 2000) during the AM and PM peak periods.

Table IV-4 of the project traffic study identifies that a Level of Service "E" is projected to be maintained at the El Toro Road/Trabuco Road intersection at a Year 2020 long-range scenario during the AM and PM peak periods.

TABLE 3
ORANGE COUNTY CONGESTION MANAGEMENT PROGRAM
HIGHWAY SYSTEM

Super Street, State Highway, and Freeways - Super Streets Signalized Interchange

Intersection / Interchange	Jurisdiction	No. on Map	AM		PM	
			B/L LOS	V/C	B/L LOS	V/C
5/Harbor Boulevard	Anaheim	24	A	.52	A	.54
5/Katella Avenue	Anaheim	26	A	.49	D	.82
57/Katella Avenue (North)	Anaheim	27N	A	.51	A	.49
57/Katella Avenue (South)	Anaheim	27S	A	.52	A	.51
91/Harbor Boulevard *	Anaheim	13	B	.61	C	.72
91/Imperial Highway (SR90 - Caltrans) West	Anaheim	20W	C	.71	B	.63
91/Imperial Highway (SR90 - Caltrans) East	Anaheim	20E	C	.73	C	.79
91/State College Boulevard (East)	Anaheim	15E	B	.69	C	.82
91/State College Boulevard (West)	Anaheim	15W	A	.55	B	.63
91/Tustin Avenue (East)	Anaheim	18E	B	.66	D	.84
91/Tustin Avenue (West)	Anaheim	18W	B	.64	A	.60
Harbor Boulevard/Katella Avenue	Anaheim	25	A	.53	B	.67
Imperial Highway/(SR90) Orangethorpe Avenue *	Anaheim	19	B	.67	D	.89
57/Imperial Highway (SR90 - Caltrans) South	Brea	5S	B	.68	B	.70
Imperial Highway (SR90)/State College Boulevard	Brea	4	C	.73	E	.93
Imperial Highway/Valencia	Brea	66	A	.56	A	.59
5/Beach Boulevard (SR39 - Caltrans)	Buena Park	8	C	.72	C	.78
91/Beach Boulevard (SR39 - Caltrans) East	Buena Park	10E	C	.74	D	.84
91/Beach Boulevard (SR39 - Caltrans) West	Buena Park	10W	A	.58	A	.59
91/Valley View Street (East)	Buena Park	7E	A	.58	D	.86
91/Valley View Street (West)	Buena Park	7W	C	.80	D	.94
Beach Boulevard (SR39)/Orangethorpe Avenue	Buena Park	9	C	.76	D	.87
405/Harbor Boulevard (North)	Costa Mesa	43N	E	.95	F	1.07
405/Harbor Boulevard (South)	Costa Mesa	43S	A	.50	B	.63
Harbor Boulevard/Adams Avenue	Costa Mesa	44	E	.99	F	1.09
Katella Avenue/Valley View Street	Cypress	22	B	.63	D	.87
Pacific Coast Highway(SR1)/Golden Lantern	Dana Point	65	A	.42	A	.55
Pacific Coast Highway(SR1)/Crown Valley Parkway	Dana Point	63	F	1.41	F	1.62
Street of the Golden Lantern/Del Prado	Dana Point	66	A	.32 ¹	A	.53 ¹
Orangethorpe Avenue/State College Boulevard	Fullerton	14	C	.80	D	.86
Harbor Boulevard/Orangethorpe Avenue	Fullerton	12	A	.60	E	.94
22/Harbor Boulevard	Garden Grove	33	F	1.10	F	1.16
22/Valley View Street	Garden Grove	29	C	.76	E	.87
Beach Blvd (SR39)/Pacific Coast Hwy. (SR1 - Caltrans)	Huntington Beach	46	A	.45	A	.47
Beach Blvd (SR39)/Edinger Ave. (S/B I-405 On-Ramp)	Huntington Beach	40	B	.63	F	1.03
Beach Boulevard (SR39)/Adams Avenue	Huntington Beach	45	A	.55	C	.67
Beach Boulevard (SR39)/Warner Avenue	Huntington Beach	41	C	.78	E	.93
Bolsa Chica Road/Bolsa Chica Avenue	Huntington Beach	31	B	.66	A	.53
Pacific Coast Highway (SR1)/Warner Avenue	Huntington Beach	37	D	.81	B	.72
Warner Avenue/Bolsa Chica Road	Huntington Beach	38	A	.57	D	.81
405/Beach Blvd. (Center Drive/Beach Blvd.)	Huntington Beach	39	A	.58	B	.69
5/Jamboree Road (North)	Irvine	53N	A	.54 ¹	C	.75 ¹
5/Jamboree Road * (South)	Irvine	53S	C	.40	A	.35
Irvine Center Drive/405 (North)	Irvine	55N	F	.95	A	.39
Irvine Center Drive/405 (South)	Irvine	55S	F	1.00	A	.57
Jamboree Road/405 (North)	Irvine	50N	F	1.03	C	.78
Jamboree Road/405 (South)	Irvine	50S	E	.92	B	.66
Jamboree/MacArthur	Irvine	49	B	.61 ¹	B	.69 ¹

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HIGHWAY SYSTEM

Super Street, State Highway, and Freeways - Super Streets Signalized Interchange

Intersection / Interchange	Jurisdiction	No. on Map	AM		PM	
			B/L LOS	V/C	B/L LOS	V/C
Beach Blvd. (SR39)/Imperial Highway (SR90-Caltrans)	La Habra	2	D	.85	D	.87
Beach Blvd. (SR39)/Whittier Blvd. (SR72-Caltrans)	La Habra	1	A	.33	A	.29
Imperial Highway (SR90)/Harbor Boulevard *	La Habra	3	D	.81	D	.86
5/Orangethorpe Avenue	La Palma	11	N/A ²		N/A ²	
Broadway/Pacific Coast Highway (SR1)	Laguna Beach	60	D	.84	C	.74
Laguna Canyon Road (SR133)/El Toro Road	Laguna Beach	59	F	1.54	F	1.16
5/El Toro Road (South) (Carlota)	Laguna Hills	57S	F	1.18	F	1.13
Moulton Parkway/Crown Valley Parkway	Laguna Niguel	62	A	.56	B	.65
5/Crown Valley Parkway (South) *	Laguna Niguel	61S	D	.77	F	1.00
El Toro Road/Trabuco Road	Lake Forest	56	F	1.03	C	.80
5/El Toro Road (North) (Bridger)	Lake Forest	57N	A	.56	D	.81
605/Katella Avenue	Los Alamitos	21	B	.69	B	.65
5/Crown Valley Parkway (North)	Mission Viejo	61N	B	.64	B	.68
Pacific Coast Hwy(SR1)/MacArthur Blvd (SR73-Caltrans)	Newport Beach	48	A	.51	B	.70
Pacific Coast Hwy(SR1)/Newport Blvd (SR73-Caltrans)	Newport Beach	47	A	.56 ¹	A	.49 ¹
55/Katella Avenue (North)	Orange	28N	C	.75	D	.85
55/Katella Avenue (South)	Orange	28S	D	.73	D	.95
57/Orangethorpe Avenue (North)	Placentia	16N	B	.67	C	.80
57/Orangethorpe Avenue (South)	Placentia	16S	C	.74	C	.69
Imperial Highway (SR90)/Rose Drive *	Placentia	6	E	.95	E	.99
Rose Drive/Orangethorpe Avenue *	Placentia	17	C	.76	F	1.03
5/Ortega Highway (SR74 - Caltrans) North	San Juan Capistrano	64N	A	.52	A	.58
5/Ortega Highway (SR74 - Caltrans) South	San Juan Capistrano	64S	B	.61	C	.77
5/First Street	Santa Ana	35	N/A ²		N/A ²	
55/Edinger Avenue (South) *	Santa Ana	51S	E	.90	F	1.06
Harbor Boulevard/Bolsa Avenue (1st Street)	Santa Ana	34	A	.48	D	.81
Harbor Boulevard/Warner Avenue	Santa Ana	42	E	.93	E	.98
Irvine/55 (South)	Santa Ana	36S	N/A ²		N/A ²	
Beach Boulevard (SR39)/Katella Avenue	Stanton	23	D	.89	F	1.02
55/North Edinger Ave.(Caltrans) *	Tustin	51N	C	.72	B	.65
55/Irvine Boulevard (Caltrans)	Tustin	36N	A	N/A ³	A	N/A ³
Jamboree Road/Irvine Boulevard	Tustin	54	B	.65	A	.59
Jamboree/Edinger	Tustin	52	B	.67	A	.60
405/Bolsa Chica Rd (Garden Grove Blvd./Bolsa Chica)	Westminster	30	E	.91	E	.97
Beach Boulevard (SR39)/Bolsa Avenue	Westminster	32	F	1.09	F	1.11
57/Imperial Highway (SR90-Caltrans) * North	Unincorporated	5N	C	.78	D	.91
El Toro Road/Moulton Parkway	Unincorporated	58	D	.94	F	1.26

* Multiple Agency Controlled

¹ Baseline LOS determined in 1992

² On-Ramp Unsignalized

³ Under Construction

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Orange County
Congestion Management Program
Highway System 1996

Smart Streets, State Highways, and Freeways- Smart Streets Signalized Interchanges

Intersection/Interchange	Jurisdiction	No. on Map	Baseline AM		1996 AM		Baseline PM		1996 PM	
			LOS	ICU	LOS	ICU	LOS	ICU	LOS	ICU
Harbor Boulevard/Katella Avenue	Anaheim	25	A	0.53	A	0.56	B	0.57	B	0.69
Imperial Highway/Orangethorpe Avenue *	Anaheim	19	B	0.67	C	0.74	D	0.89	E	0.91
I-5 NB Ramps/Harbor Boulevard	Anaheim	24	A	0.52	A	0.50	A	0.54	A	0.51
I-5 NB Ramps/Katella Avenue	Anaheim	26	A	0.49	B	0.61	D	0.82	C	0.76
SR-57 NB Ramps/Katella Avenue	Anaheim	27N	A	0.51	A	0.49	A	0.41	A	0.54
SR-57 SB Ramps/Katella Avenue	Anaheim	27S	A	0.52	A	0.51	A	0.51	A	0.46
SR-91 WB Ramp/Harbor Boulevard	Anaheim	13	B	0.61	A	0.43	C	0.77	A	0.59
SR-91 WB Ramp/Imperial Highway	Anaheim	20W	C	0.71	B	0.70	B	0.63	C	0.78
SR-91 EB Ramp/Imperial Highway	Anaheim	20E	C	0.73	C	0.78	C	0.79	E	0.93
SR-91 WB Ramp/State College Boulevard	Anaheim	16W	A	0.55	A	0.45	B	0.63	B	0.52
SR-91 EB Ramps/State College Boulevard	Anaheim	16E	B	0.69	A	0.53	D	0.82	B	0.68
SR-91 WB Ramps/Tustin Avenue	Anaheim	18W	B	0.64	A	0.54	A	0.50	B	0.67
SR-91 EB Ramps/Tustin Avenue	Anaheim	18E	B	0.66	A	0.58	D	0.84	A	0.51
State College Boulevard/Imperial Highway	Brea	4	C	0.73	B	0.66	E	0.93	D	0.83
Valencia Avenue/Imperial Highway	Brea	66	A	0.56	A	0.63	A	0.59	B	0.66
SR-57 SB Ramps/Imperial Highway	Brea	65	B	0.68	B	0.70	B	0.70	D	0.87
SR-91 EB Ramp/Beech Boulevard	Buena Park	10E	C	0.74	A	0.56	D	0.84	C	0.71
SR-91 WB Ramp/Beech Boulevard	Buena Park	10W	A	0.58	A	0.53	A	0.59	B	0.66
SR-91 EB Ramp/Yalley View Street	Buena Park	7E	A	0.58	A	0.44	D	0.86	B	0.66
SR-91 WB Ramp/Yalley View Street	Buena Park	7W	C	0.80	A	0.55	E	0.94	C	0.75
Beech Boulevard/Orangethorpe Avenue	Buena Park	9	C	0.76	D	0.87	D	0.87	E	0.97
I-5 SB Ramps/Beech Boulevard	Buena Park	8	C	0.72	B	0.66	C	0.78	B	0.68
Harbor Boulevard/Adams Avenue	Costa Mesa	44	E	0.99	B	0.65	F	1.09	E	0.96
I-405 SB Ramps/Harbor Boulevard	Costa Mesa	43S	A	0.53	A	0.60	B	0.63	C	0.72
I-405 NB Ramps/Harbor Boulevard	Costa Mesa	43N	E	0.95	B	0.66	F	1.07	D	0.84
Valley View Street/Katella Avenue	Cypress	22	B	0.63	D	0.84	D	0.87	E	0.92
Crown Valley Parkway/Bay Drive/PCH	Dana Point	63	F	1.41	D	0.86	F	1.62	C	0.73
Street of the Golden Lantern/PCH	Dana Point	65	A	0.42	A	0.47	A	0.55	A	0.60
Street of the Golden Lantern/Del Prado Avenue	Dana Point	66	A	0.32	A	0.33	A	0.53	A	0.63
Harbor Boulevard/Orangethorpe Avenue	Fallerton	12	A	0.60	A	0.52	E	0.94	C	0.80
State College Boulevard/Orangethorpe Avenue	Fallerton	14	C	0.80	C	0.79	D	0.85	D	0.83
SR-22 WB Ramps/Harbor Boulevard	Garden Grove	33	F	1.10	D	0.88	F	1.16	F	1.05
SR-22 WB Ramp/Yalley View Street	Garden Grove	29	C	0.76	B	0.70	D	0.87	B	0.66
Boise Chico Street/Boise Avenue	Huntington Beach	31	B	0.65	B	0.69	A	0.53	A	0.50
Boise Chico Street/Warner Avenue	Huntington Beach	38	A	0.57	F	1.47	D	0.81	F	1.49
Beech Boulevard/Warner Avenue	Huntington Beach	41	C	0.78	D	0.97	E	0.93	E	0.95
Beech Boulevard/Adams Avenue	Huntington Beach	45	A	0.55	A	0.58	C	0.67	D	0.89
Beech Boulevard/Pacific Coast Highway	Huntington Beach	46	A	0.45	A	0.54	A	0.47	C	0.74
Beech Boulevard/405 SB Ramp/Edinger Avenue	Huntington Beach	40	B	0.63	B	0.66	E	1.03	D	0.89
Pacific Coast Highway/Warner Avenue	Huntington Beach	37	D	0.81	F	1.06	B	0.72	D	0.90
Beech Boulevard/405 SB Ramps/Center Drive	Huntington Beach	39	A	0.54	B	0.63	E	0.94	D	0.81
MacArthur Boulevard/Jamboree Road	Irvine	49	B	0.61	B	0.65	B	0.69	C	0.77
I-5 NB Ramps/Jamboree Road	Irvine	53N	A	0.54	B	0.62	C	0.75	A	0.55
I-5 SB Ramps/Jamboree Road *	Irvine	53S	A	0.40	A	0.52	A	0.35	A	0.57
I-405 NB Ramps/Enterprise/Irvine Center Drive	Irvine	55N	E	0.95	D	0.82	A	0.39	A	0.52
I-405 SB Ramps/Irvine Center Drive	Irvine	55S	E	1.00	E	0.95	A	0.57	A	0.58
I-405 NB Ramps/Jamboree Road	Irvine	50N	F	1.03	D	0.81	C	0.78	B	0.67
I-405 SB Ramps/Jamboree Road	Irvine	50S	E	0.92	C	0.80	B	0.65	A	0.54
Laguna Canyon Road/El Toro Road	Laguna Beach	59	F	1.54	D	0.82	F	1.16	F	1.26
Broadway/Pacific Coast Highway	Laguna Beach	60	D	0.84	D	0.81	C	0.74	C	0.74
I-5 SB Ramp/Avenue de la Carlotta/El Toro Road	Laguna Hills	57S	F	1.18	D	0.88	F	1.13	D	0.89
Moulton Parkway/Crown Valley Parkway	Laguna Niguel	62	A	0.55	B	0.62	B	0.65	B	0.63

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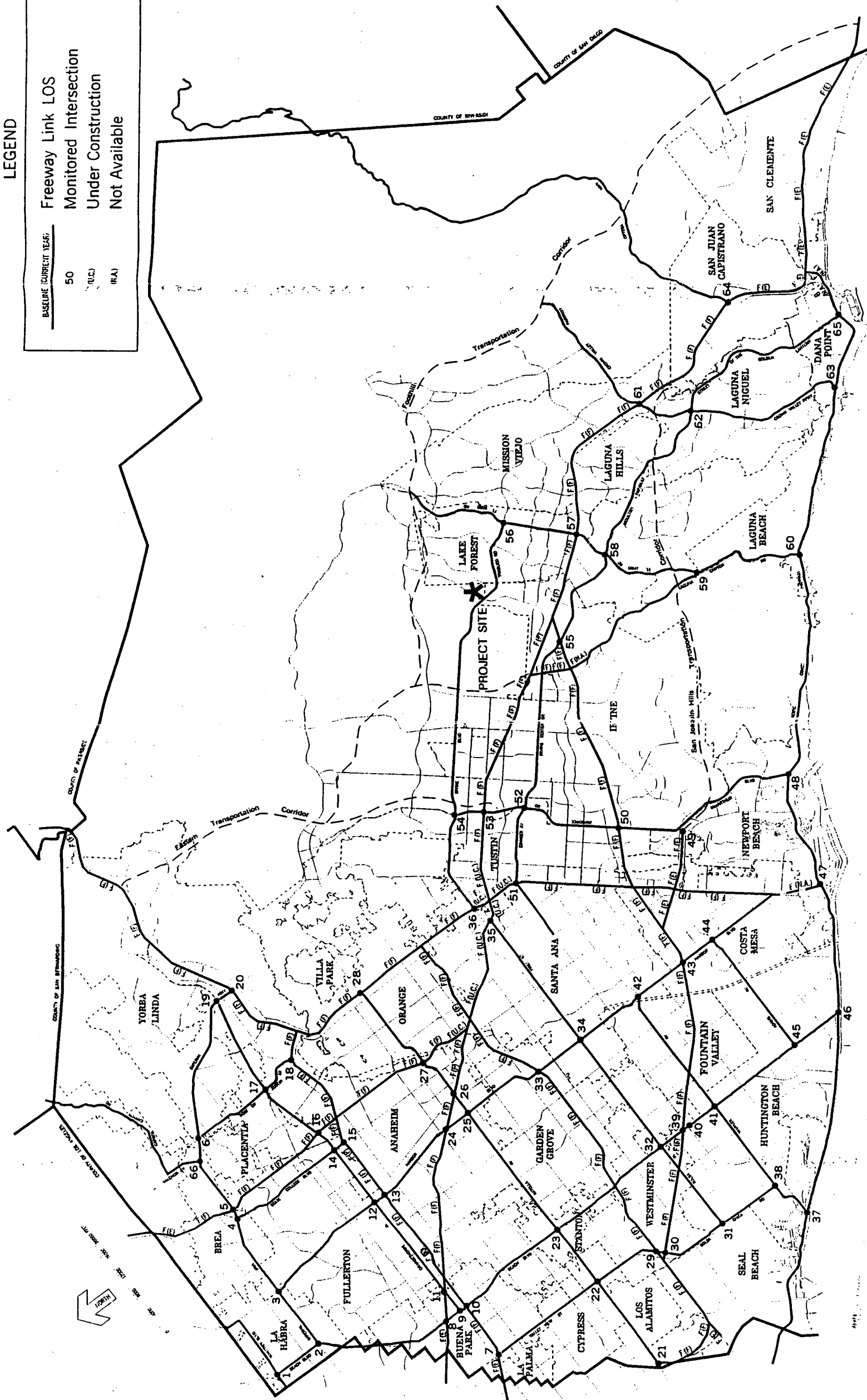
Orange County
Congestion Management Program
Highway System 1996

Smart Streets, State Highways, and Freeways- Smart Streets Signalized Interchanges

Intersection/Interchange	Jurisdiction	No. on Map	Baseline AM		1996 AM		Baseline PM		1996 PM	
			LOS	ICU	LOS	ICU	LOS	ICU	LOS	ICU
Harbor Boulevard/Imperial Highway *	La Habra	3	D	0.81	C	0.77	D	0.86	D	0.83
Beech Boulevard/Imperial Highway	La Habra	2	D	0.85	D	0.82	D	0.87	E	0.93
Beech Boulevard/Whittier Boulevard	La Habra	1	A	0.33	A	0.56	A	0.29	A	0.55
Trabuco Road/EI Toro Road	Lake Forest	56	F	1.03	B	0.61	C	0.80	C	0.72
I-5 NB/Bridger/EI Toro Road	Lake Forest	57N	A	0.56	B	0.70	D	0.81	C	0.78
I-505 NB Ramps/Katella Avenue	Los Alamitos	21	B	0.69	B	0.65	B	0.65	C	0.72
I-5 NB Ramps/Crown Valley Parkway	Mission Viejo	61N	B	0.68	A	0.57	B	0.69	A	0.47
I-5 SB Ramps/Crown Valley Parkway	Mission Viejo	61S	D	0.85	A	0.56	F	1.01	B	0.66
Newport Boulevard/Pacific Coast Highway	Newport Beach	47	A	0.56	A	0.45	A	0.49	B	0.65
MacArthur Boulevard/Pacific Coast Highway	Newport Beach	48	A	0.51	A	0.58	B	0.70	B	0.69
SR-55 NB Ramps/Sacramento/Katella Avenue	Orange	28N	C	0.75	C	0.71	D	0.85	C	0.78
SR-55 SB Ramps/Katella Avenue	Orange	28S	C	0.73	B	0.61	E	0.95	C	0.75
Moulton Parkway/EI Toro Road	County of Orange	58	E	0.94	F	1.01	F	1.26	D	0.83
SR-57 NB Ramps/Imperial Highway *	County of Orange	5N	C	0.78	B	0.69	E	0.91	D	0.88
Rose Drive/Tustin Avenue/Orangethorpe Avenue *	Pasadena	17	C	0.76	F	1.26	F	1.03	F	1.34
SR-57 NB Ramps/Orangethorpe Avenue	Pasadena	16N	B	0.57	A	0.59	C	0.80	B	0.66
SR-57 SB Ramps/Orangethorpe Avenue	Pasadena	16S	C	0.74	C	0.78	B	0.69	C	0.71
Rose Drive/Imperial Highway *	Pasadena	6	E	0.95	B	0.69	E	0.99	E	0.99
I-5 NB Ramps/Ortega Highway	San Juan Capistrano	64N	A	0.52	A	0.59	A	0.58	C	0.71
I-5 SB Ramps/Ortega Highway	San Juan Capistrano	64S	B	0.61	A	0.57	C	0.77	C	0.75
Harbor Boulevard/1st Street	Santa Ana	34	A	0.48	B	0.68	D	0.81	B	0.70
Harbor Boulevard/Warner Avenue	Santa Ana	42	E	0.93	D	0.88	E	0.98	C	0.73
I-5 SB Ramps/1st Street *	Santa Ana	35	N/A	N/A	A	0.35	N/A	N/A	A	0.50
SR-55 SB Ramps/Auto Mall/Edinger Avenue *	Santa Ana	51S	D	0.90	C	0.75	F	1.06	C	0.80
SR-55 SB Ramps/Irvine Boulevard *	Santa Ana	36S	N/A	N/A	B	0.70	N/A	N/A	D	0.85
Beech Boulevard/Katella Avenue	Stanton	23	D	0.89	C	0.74	F	1.02	D	0.83
Jamboree Road/Edinger Avenue	Tustin	52	B	0.67	D	0.82	A	0.60	E	0.92
Jamboree Road/Irvine Boulevard	Tustin	54	B	0.65	C	0.80	A	0.59	D	0.88
SR-55 NB Ramps/Edinger Avenue *	Tustin	51N	C	0.72	B	0.62	B	0.65	C	0.75
SR-55 NB Ramps/Irvine Boulevard	Tustin	36N	A	0.59	B	0.69	A	0.45	C	0.75
Beech Boulevard/Bolsa Avenue	Westminster	32	F	1.09	D	0.84	F	1.11	E	0.97
Bolsa Chico Road/Garden Grove Boulevard	Westminster	30	E	0.91	C	0.77	E	0.97	E	0.93

* Multiple Agency Controlled

+ Under Construction/Construction Impact



CONGESTION MANAGEMENT PROGRAM HIGHWAY SYSTEM

002400
Figure 3

County of Orange, California
EMA, Transportation Planning
April 1994

Section III: Measure M MPAH Levels of Service

CMP/GMP Framework:

The Orange County Measure M Growth Management Program (GMP) requires that the general target goal for the Orange County Master Plan of Arterial Highways (MPAH) be Level of Service (LOS) D for arterial intersections under the sole control of the jurisdiction, except where a worse LOS standard has been established by the local jurisdiction in which the intersection is located. Local jurisdictions can adopt as "deficient intersections" any existing intersection not meeting the established level of service standard, where there are seemingly no opportunities for making any conventional geometric improvements within a current, seven-year Measure M capital improvement program.

Jurisdictions may also establish a level of service standard worse than LOS D for certain intersections in urbanized areas.

Discussion/Findings:

Segments of the Master Plan of Arterial Highways located in the project vicinity are illustrated in Figure II-3 of the project traffic study.

Measure M arterials in the project study area include:

- Irvine Blvd/Trabuco Road (also a CMPHS roadway)
- Toledo Way
- Jeronimo Road
- Barranca Parkway/Muirlands Blvd.
- Rockfield Blvd.
- Irvine Center Drive/Moulton Parkway
- Sand Canyon Avenue (also a CMPHS roadway)
- Alton Parkway
- Bake Parkway
- Lake Forest
- Ridge Route Drive
- El Toro Road (also a CMPHS roadway)

The Measure M Growth Management Program requires each Orange County jurisdiction to participate in interjurisdictional planning forums. These forums—referred to as Growth Management Area (GMA) forums—are established to foster coordination among jurisdictions, with the goal of reducing cumulative impacts of development on the regional transportation system.

GMA boundaries were adopted in 1991, creating eleven geographic boundaries for the structure of the GMA forums. The proposed project is located within GMA 9, which includes portions of the City of Irvine, City of Lake Forest, City of Mission Viejo, City of San Juan Capistrano, and the County of Orange.

Annually, the representatives of GMA 9 have reviewed traffic levels of service upon the regional and arterial roadway network, and based upon these levels of service reports, annually establishes a list of GMA 9 deficient intersections for the purposes of identifying potential candidate projects for transportation funding.

Existing Conditions:

Table II-1 of the project traffic study summarizes the existing ICUs for the study area intersections. Traffic counts for the study area intersections were conducted in 1996.

The project traffic study identifies that two intersections along Bake Parkway are currently operating at a level of service worse than the Measure M performance standard of LOS "D":

- Bake Parkway at Irvine Blvd/Trabuco
- Bake Parkway at Jeronimo

While the traffic study reflects existing operations on the basis of 1966 traffic counts, GMA 9 has also identified the intersection of Barranca Parkway/Muirlands Blvd at Alton Parkway as an additional deficient intersection in the project study area. This intersection is reported with a 1995 ICU of 0.98 (Level of Service "E"). GMA 9 has identified an improvement program of providing additional turn lanes at the intersection to improve existing levels of service. Design work for the proposed improvement is planned to commence in Fiscal Year 1998-99, with right-of-way and construction in Fiscal Year 1999-2000. At present, the improvement is partially funded with Measure M GMA 9 transportation funds.

Interim (Year 2000) Conditions:

For the Interim (Year 2000) scenario, the project traffic study analyzes the circulation impact that the additional traffic generated by full buildout of the James A. Musick expansion will incur upon the study area intersections during the Interim Year analysis. This is summarized in Table IV-2 of the traffic study.

The project traffic study identifies, for Interim (Year 2000) conditions, that all Measure M intersections in the study area will operate within the Measure M LOS "D" performance standard, except for:

- Alton Parkway at Irvine Blvd., which is projected to operate at LOS "E" with the addition of project-generated traffic.

In conformance with Measure M Development Mitigation Program requirements, circulation improvements have been identified in the project traffic study to accommodate the increased traffic and maintain Measure M levels of service goals at the Alton Parkway/Irvine Blvd. intersection.

At present, Alton Parkway terminates at Irvine Blvd. In conjunction with project development, Alton Parkway will be extended northerly to a new signalized intersection at Alton and the Musick Jail Facility entrance, thereby servicing traffic demand generated by the jail facility. These circulation improvements will be constructed and be operational upon project occupancy.

The project traffic study also analyzes the provision of a second southbound left turn lane from Alton Parkway onto Irvine Blvd, and a westbound right-turn lane from Alton Parkway onto Irvine Blvd. With the construction of these intersection improvements, the level of service of Alton Parkway at Irvine Blvd. will be mitigated from LOS "E" to LOS "D", and through this improvement, meet the established, Measure M performance standard of LOS "D". This is discussed on page IV-13 of the project traffic study.

The Orange County MPAH identifies that Alton Parkway will ultimately be extended northerly as a six-lane facility to Portola Parkway. This improvement is programmed as a component of the Foothill Circulation Phasing Plan (FCPP), with funding for the roadway extension secured through an adopted county fee program for the FCPP. The County of Orange will administer and fund the construction of the ultimate improvements to the Alton Parkway extension.

The Measure M Development Phasing Program requires that the timing of transportation improvements provided through transportation fee programs, applicable capital improvement projects and conditioned roadway improvements, be coordinated with anticipated development construction. This ensures that infrastructure is logically added as development proceeds, so that roadway improvements are in balance with demand.

The transportation improvements identified in the traffic study to mitigate the Musick Facility Expansion project, will be completed upon initial project occupancy, thereby allowing the needed

roadway improvements to be in balance with the projected demand.

Long-Range (Year 2020) Conditions:

The project traffic study also analyzes a long-range scenario of circulation conditions in Year 2020, with both a project and no-project scenario. Table IV-4 of the project traffic study identifies five intersections, under long-range conditions, which are projected to exceed Measure M performance standards in Year 2020:

- Alton Parkway at Irvine Blvd.*
- Musick/Fairbanks at Irvine Blvd.*
- Bake Parkway at Irvine/Trabuco*
- El Toro Road at Trabuco*
- Bake Parkway at Jeronimo

Four of the five intersections, referenced above with asterisks, are projected to exceed Measure M performance standards even in absence of the Musick Expansion project.

El Toro Road at Trabuco Road, as discussed earlier in Section II: CMP Levels of Service, is a designated CMP Highway System intersection, with baseline levels of service established in concert with state legislation. As referenced in Section II, the El Toro Road/Trabuco Road intersection is required to maintain an AM performance standard of LOS "F" (V/C no greater than 1.13), and a PM performance standard of LOS "E" (V/C no greater than 1.00). Table IV-4 of the project traffic study identifies that at long-range buildout, and with the project traffic, these CMP performance standards will be maintained.

The traffic study also identifies, in Table IV-6, proposed mitigation that would mitigate project impacts at the remaining intersections where project contribution results in an increase of .01 or more in the ICU value. One intersection--Musick/Fairbanks at Irvine Blvd--is projected to operate at LOS "E" during the PM peak hour even after implementation of proposed mitigation.

As referenced earlier, the proposed project will be built out by the Interim Year scenario, and identified transportation improvements necessary to maintain Measure M levels of service standard with the inclusion of the project's traffic will be implemented in conjunction with project's development. This meets the Measure M Growth Management Program requirement of insuring that new development is phased in accordance with needed circulation improvements.

Measure M's Development Mitigation Program also recognizes that new development can contribute to longer-range transportation improvements necessary to support local jurisdiction's implementation of their respective General Plan land use programs. The establishment and operation of the aforementioned Growth Management Area (GMA) forums, and the creation of areawide fee programs, are mechanisms which have been established, pursuant to Measure M provisions, to address regional transportation improvements within a multi-jurisdictional framework.

In concert with Measure M requirements, the Draft Environmental Impact Report for the proposed project will include a mitigation measure that requires the project applicant—the County of Orange—to establish a new road fee program for the study area, and to require the County of Orange to establish its pro-rata share of required transportation improvements necessary to service the study area and maintain levels of service standards. This mitigation measure is consistent with the Orange County guidelines for establishing a traffic mitigation program for areas within GMAs where improvements are needed, but are not included or addressed through existing mitigation mechanisms.

Section IV: Transportation Fee Program Participation

CMP/GMP Framework:

The traffic impact analysis conducted for CMP/Measure M purposes allows a local jurisdiction to understand how the additional traffic generated by a proposed project will impact CMP and Measure M levels of service within and outside the jurisdiction's boundaries. Through this assessment, circulation improvements can be identified to accommodate the increased traffic in order to maintain levels of service goals.

Measure M further requires that a Development Mitigation Program be implemented which ensures that new growth is paying its share of the costs associated with that growth, including regional traffic mitigation. This requirement can be accomplished through applicant-participation in transportation fee programs which have been established on a citywide or areawide basis; or payment of fair-share fees towards specified transportation improvements.

Discussion/Findings:

The County of Orange has established Major Thoroughfare and Bridge Fee Programs to fund approved regional and areawide transportation improvements. New development is required to participate in the fee program, if their properties are located within the adopted area of benefit of the fee program.

The Musick Facility Expansion site is located within the adopted area of benefit of three transportation fee programs:

- the Foothill Circulation Phasing Program (FCPP);
- the Foothill/Eastern Transportation Corridor Road Fee Program; and,
- the Santiago Road Fee Program.

Payment of fees are typically conditioned upon project approval.

Adopted language in each of these fee programs identifies that "government-owned facilities or utilities shall be exempt from payment of fees to the extent that the facilities will not be used for generating revenue or commercial purposes. Examples of exempt public uses are city halls, park buildings, and other public buildings."

These provisions in the adopted fee programs allow the County of Orange to exempt the Musick Jail Facility Expansion project from the payment of transportation fees, should the County of Orange so elect.

Section V: Transportation Demand Management

CMP/GMP Compliance:

Transportation Demand Management (TDM) provisions of the Congestion Management Program and Measure M Growth Management Program require that non-residential public and private development proposals projected to generate more than 100 employees, implement facility-based improvements to encourage alternatives to the single-occupant vehicle. This would include all forms of ridesharing, public transit, bicycling or walking. The County of Orange adopted a Trip Reduction and Travel Demand Ordinance (Ordinance 3820) to require facility design regulations upon new, non-residential development.

Discussion/Findings:

The Musick Jail Facility Expansion project is subject to the provisions of the County of Orange TDM ordinance, since the project generates greater than 100 employees on-site.

The Orange County Transportation Authority (OCTA) is currently reviewing and will assess, in conjunction with the environmental review process of the project, public transit accessibility to the site from the future extension of Alton Parkway. OCTA will also determine if bus stops should also be provided, if bus service is extended along Alton Parkway.

In conjunction with project site plan development, the applicant will install facility improvements to promote transportation demand management considerations. They include such features as:

- the installation of a bus turnout on Alton Parkway, farside of the signalized intersection at the project entrance;
- construction of a sidewalk along the Alton Parkway extension, fronting the project site; and,
- construction of sidewalks along the project entrance off Alton Parkway.

These features will accommodate direct, transit accessibility to the facility's Visitor Center.

Section VI: Traffic Model Data Consistency

CMP Compliance:

The Orange County CMP requires that any transportation model used in a CMP traffic impact analysis be analyzed for its consistency to 1992 socioeconomic data approved by the County of Orange, known as Orange County Projections 1992 (OCP-92).

The traffic impact analysis report is required to address a comparison between the land use or socioeconomic data used in the model analysis; and the corresponding socioeconomic data from the OCP-92 data base. The Orange County CMP also requires that there be a reconciliation of any major differences between the two data bases.

This is in response to adopted CMP legislation which requires consistency between subarea models, countywide models, and regional models.

Discussion:

The project traffic study states that the transportation modeling efforts conducted for the project traffic study, were conducted in compliance with the provisions of the Orange County CMP Traffic Model Data Consistency Requirements.